

ABSTRACT OF THE DISCLOSURE

The present invention provides a lighting head assembly that incorporates a high intensity LED package into an integral housing for further incorporation into other useful lighting devices. The present invention primarily includes two housing components, namely an inner mounting die and an outer enclosure and an optical component for collimating and focusing the light output. The inner and outer components cooperate to retain the LED package, provide electrical and control connections, provide integral heat sink capacity. Further the integrally incorporated optical lens captures, homogenizes and transmits substantially all of the light emitted by a light source, such as a light emitting diode. The present invention transmits 85% of the light emitted by the light source and produces a uniformly illuminated circular image in the far field of the device. In this manner, high intensity LED packages can be incorporated into lighting assemblies through the use of the present invention by simply installing the present invention into a housing and providing power connections thereto.